# **Computer Technologies**

## **Degree Type**

Associate in Science

The Department of Computer Technologies offers an Associate Degree program for either full-time or part-time study. The 61-63 credit degree consists of 28-30 credits of General Education Core courses, 12 credits of a Technical Core of courses, and 21 credits of Technical electives. It is recommended that students use the Technical electives to create a technology focus or pathway. This will allow students to gain a breadth and depth of knowledge in a given specialty and ensure the development of a marketable set of skills to offer employers in industry.

## **Program Outcomes**

Pending course selection, graduates will be able to:

- Analyze a problem and identify and define the computing requirements appropriate to its solution.
- Design, implement and evaluate a computer-based process or program to meet desired needs.
- Use current techniques, skills, and tools necessary for computing practices.
- Demonstrate a familiarity with state-of-the-art programming techniques, tools, and practices.
- Demonstrate a solid foundation in the fundamental areas of computer science which are algorithms, systems, and software and exposure to multiple sub-disciplines of computer science.
- Understand professional, ethical, legal, security, and social issues and responsibilities related to IT, to include an understanding of cross-cultural issues and global perspectives.
- Use written and oral communication skills necessary to be effective in the IT industry.
- Recognize the need to maintain currency with future changes in the computing profession.
- Use creative and critical thinking processes to work independently and/or collaboratively to develop complex solutions and take the lead to implement those solutions.
- Function effectively on teams to accomplish a common goal.
- Through the use of an online portfolio, students will assess and reflect upon their own learning and create a cumulative portfolio of their "best" work.

## Health, Safety, and Internship Considerations

Participation in an internship requires the student to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance.

#### **Technical Standards**

Students who enroll in the program should comprehend the English language, both oral and written, and should have the ability to communicate effectively to gather and convey information. They should be able to sit at a computer workstation and stay on task for extended periods of time and be able to replicate teacher-demonstrated procedures. They should apply principles, concepts, and procedures for industry standards, behave appropriately in both self-directed and shared learning environments, and perform basic mathematical operations.

#### **Transfer Credit Policy**

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In addition to Great Bay transfer credit policies, transfer of courses into Computer Technologies more than five years old will be evaluated by the department chair and program coordinator(s) on an individual basis.

# First Year

# **Fall Semester**

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	Liberal Arts Elective (Comp Tech)	3	0	3-5
ANTH105G	Introduction to Ethnography: World of Work	4	0	4
CIS111G	Computer Technologies	2	2	3
	CIS112G or CIS177G	2	2	3
	Sub-Total Credits	15-17	4-6	17-20

# **Spring Semester**

Item #	Title	<b>Theory Hours</b>	<b>Lab Hours</b>	Credits
MATH170G	Discrete Mathematics	4	0	4
CIS113G	Database Design and Management	2	2	3
	Technical Elective (Comp Tech)	2	2	3
SOCI120G	Society and Technological Change	3	0	3
	Humanities/Fine Arts Elective (Computer	3	0	3
	Technologies)			
	Sub-Total Credits	14	4	16

SOC120G, Humanities/Fine Arts Elective: It is recommended to take these courses in the summer semester if possible.

# Second Year

### **Fall Semester**

Item #	Title	Theory Hours	Lab Hours	Credits
	Lab Science Elective	3	3	4
	IST122G or IST112G	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Sub-Total Credits	9	9	13

# **Spring Semester**

Item #	Title	Theory Hours	Lab Hours	Credits
	English Elective	3	0	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Sub-Total Credits	11	8	15

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# **Curriculum Recommendations**

### Associate in Science

- If students are seeking to transfer to a four-year program, it is recommended that they consider fulfilling a Liberal Arts Elective requirement with a higher-level MATH course. MATH170G is the minimum required MATH course; however, MATH215G or above is strongly encouraged.
- Students should see their advisor for specific recommendations based on possible future transfer plans.
- Students should also see their advisor for assistance when making course selections.

Total Credits 61-64

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